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ABSTRACT

The Bilingual Academic and Career Orientation Program (BACOP) at George Washington High School in New York City is a basic bilingual secondary education program with a career orientation focus. In 1981-82, the program offered bilingual instructional and supportive services to 250 Hispanic students of limited English proficiency in grades nine through eleven. Other program activities included staff training, provision of opportunities for parent involvement, and curriculum development. This report describes the program context, components, participants, activities, and evaluation. Evaluation results indicate that, in general: (1) participants met the criterion objective for English; (2) participants did not show significant improvement in Spanish language skills; (3) over half of the participants passed teacher-made tests in mathematics, science, and social studies; and (4) the attendance rate of the program participants was higher than the school-wide attendance rate. Recommendations for program improvement are presented. A description of the program evaluation plan is provided in the appendix. (MJL)

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O.E.E. Evaluation Report

February, 1983

GEORGE WASHINGTON HIGH SCHOOL

BILINGUAL ACADEMIC AND CAREER

ORIENTATION PROGRAM

1981-1982

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Director:
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A SUMMARY OF THE EVALUATION
FOR THE BILINGUAL ACADEMIC AND CAREER
ORIENTATION PROGRAM
GEORGE WASHINGTON HIGH SCHOOL
1981-1982

This program, in its first year of a two-year funding cycle, offered bilingual instruction and supportive services with a career orientation focus to 250 Hispanic limited English proficient students in grades nine through eleven. Program students were all Hispanic and spoke Spanish at home. A vast majority of the students were born outside the United States: approximately 81 percent were born in the Dominican Republic. The students varied in proficiency in English, ability in their native language, and overall academic preparedness.

The major goal of the program was to expedite the acquisition of the English-language skills necessary for full mainstreaming within an average period of three years. A gradual transition into the mainstream was accomplished by placing students in content-area courses in their native language and some E.S.L. classes during the first two years. In the third year, students attended subject-area courses taught with an E.S.L. approach geared to their level of English proficiency and by the fourth year, were expected to function effectively in all-English classes in the subject areas.

Title VII funds supported administrative and support services staff. The instructional component was supported primarily by Title I, with additional funding from Chapter 720 and tax-levy. Curriculum materials adapted from the city school system curricula were used in addition to commercially-developed curricula and materials. A lesson-planning guide to include "career infusion" in the teaching of subject areas was being prepared. Supportive services to program students consisted of academic and personal guidance, home visits, telephone contacts, and outside referrals. Staff development activities included an initial orientation meeting, regularly scheduled department and faculty meetings, and training sessions on career awareness. Parents of program students participated in a parent-student advisory committee, a variety of school-wide and program activities, and through the initiation of meetings with the school principal.

Students were assessed in English-language development Criterion Referenced English Syntax Test; growth in the mastery of Spanish (Inter-american Series, Prueba de Lectura); High School Equivalency Examinations in Spanish reading, writing, and mathematics; social studies, science, and mathematics (teacher-made tests); and attendance (school and program records). Quantitative analysis of student achievement indicates that:

--On the average, students mastered more than one objective per month of instruction as measured by the CREST, and succeeded in achieving the criterion set as the program objective.

--In native-language reading ability, students in general showed small gains on the Prueba de Lectura; however, this improvement was neither statistically nor educationally significant and the criterion set as the program objective was not met.

--Overall, students who took the High School Equivalency Tests in Spanish reading, writing, and mathematics met the criterion of a 65 percent passing rate set as the program objective in both the fall and spring.

--In general, students who took teacher-made examinations in mathematics, science, and social studies courses taught bilingually received overall passing rates which ranged from 56.5 percent in social studies in the fall to 88.3 percent in science in the spring. In all of the content areas, there appeared to be a positive relation between grade and student performance: the higher the grade, the higher the percent passing.

--Overall, 96 percent of the students enrolled in mainstream content-area courses taught in English and who received services from the program, passed teacher-made examinations in those areas.

--The average attendance rate of program students surpassed that of the school by 21.7 percentage points.

The following recommendations were aimed at improving the overall effectiveness of the program:

--Establishment of a collaborative process involving administrators, teachers, and technical assistants to systematically review, revise, and plan the articulation between E.S.L. and bilingual instruction in content areas;

--Assessment of teacher training needs in the areas of bilingualism and culture in education followed by in-service training workshops and college course attendance related to identified needs;

--Planning and implementation of a bilingual instructional and staff development program to include teacher observation, need identification, and observer feedback;

--Acquisition and/or adaptation of curricula and materials to further develop the career education component.

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GEORGE WASHINGTON HIGH SCHOOL
BILINGUAL ACADEMIC AND CAREER ORIENTATION PROGRAM

Location:	549 Audubon Avenue New York, New York 10040
Year of Operation:	1981-82, first of two-year funding cycle
Target Language:	Spanish
Number of Participants:	250 students in grades nine to eleven
Principal:	Mr. Samuel Kostman
Project Director:	Mr. Jose Fraga

INTRODUCTION

The Bilingual Academic and Career Orientation Program (BACOP) was funded for fiscal year 1981-82 as a new grant under the provisions of the Elementary and Secondary Education Act (E.S.E.A.) Title VII and Chapter 720 of the New York State laws. This funding period completes the first of a two-year Title VII funding cycle. BACOP is a basic bilingual secondary education program with a career orientation focus. Operating as part of George Washington High School's foreign language department, it offered bilingual instructional and supportive services to 250 Hispanic limited English proficient (LEP) students, grades nine through eleven. Program participants received tax-levy bilingual services along with other Spanish-dominant bilingual students -- those eligible for bilingual services on the basis of scores on the Language Assessment Battery (LAB) and parental consent, who receive only tax-levy services. For the purposes of this

report, "program students" will refer to the 250 students selected for the BACOP program.

The project staff engaged in staff development activities primarily by attending college or university courses for further professional development. Parents were involved in the program by means of a parents' advisory council, sociocultural activities, and direct contact with the program's family assistant. New York City Board of Education, and commercially- and project-developed curricula were adopted for instruction in English and Spanish.

The purposes of this report are: to describe the project's context, components, participants, and activities; to report student achievement and attendance data; to analyze and interpret program and student data; and to make recommendations for possible improvement.

I. CONTEXT

COMMUNITY SETTING

George Washington High School is located on Manhattan's upper west side, some twenty blocks north of the George Washington Bridge, in the midst of apartment houses and small businesses. Two residential projects, the Dyckman Houses and the George Washington Houses, are in the area. Family-owned shops, discount stores, fast-food restaurants, supermarkets, and banks serve the community.

The area's population is approximately 75 percent Hispanic; immigrants from the Dominican Republic predominate. Twenty-three percent are black American. The remaining two percent, designated "other," include a number of Haitians. Spanish is the language used throughout the community by Hispanics for most purposes. Despite ethnolinguistic differences, no major problems resulted from ethnic/racial conflict in recent years.

The area is decidedly poor: many families qualify for public assistance; many live in sub-standard housing. A large number of the neighborhood's students are eligible for free school lunches, and many work part-time to help support their households.

The population is highly mobile. Newly-arrived immigrants move into the area as their more settled neighbors move out to seek better living conditions. The area is said to be unsafe as robberies, muggings, and other crimes, particularly those related to drugs, are on the rise. During the past school year program students were assaulted and robbed during school entry hours. Unemployment and the high incidence of teenage pregnancies

are factors which affect the community, but crime and drug traffic seem to be the factors which most directly affect students' attendance and drop-out rates.

The community and surrounding neighborhoods have a number of educational resources, including several colleges and universities -- Boricua and City Colleges, Yeshiva and Columbia Universities, and the Manhattan Conservatory of Music. It also has libraries, museums, hospitals, parks, and recreational facilities. The Washington Heights Chamber of Commerce, banks, and the local merchants offer some employment opportunities. Transportation is easily available, and buses and subways stop near the school. Many students walk to and from school, however, since the cost of transportation for students has increased in the city.

SCHOOL SETTING

The school is housed in a five-story building constructed in the 1920's. Its ornate style and winding central staircase give the building a stately appearance. In general, the school and its facilities -- which include an all-weather track, an astroturf field, and tennis and handball courts -- have been well maintained.

George Washington is a Title I-E.S.E.A. eligible high school with a total student enrollment of 3,100 students. Of these 2,164 or 70 percent are eligible for free lunches. Table 1 presents the number of students by home languages, percentage of total enrollment, and percentage LEP.

TABLE 1

Home Language of Students in the School

Language	No. of Students	% Total Enrollment	% LEP
Spanish	1,950	63	50
French/ Haitian Creole	25	1	50
Urdu	8	-	50
English	1,117	36	-

The bilingual program, the largest in the school, occupies a cramped office on the fourth floor. During 1981-82, the project was allocated the office space of the department of foreign languages in addition to the space it has always occupied. This allocation was due to the temporary absence of the department chairperson, and the bilingual project director's assignment as acting chairperson. Additional space recommendations were made in past bilingual program evaluations, and the project director requested more space during the program's first year of operation. Bilingual classes are dispersed throughout the building according to areas designated to each subject department. There is a resource center in a large classroom which program students and teachers use as a library. It is equipped with dictionaries, encyclopedias, other reference materials, and varied types of publications in English and Spanish. The resource specialist and a teacher aide are available in this room for assistance.

II. PARTICIPANTS

STUDENT CHARACTERISTICS

Program students live within two miles of the school in the community described above. There are more male than female students in the whole program and in each grade. Table 2 presents the number of students by sex and grade.

TABLE 2

Number and Percentages of Students by Sex and Grade

Grade	Male N	Percent of Grade	Female N	Percent of Grade	Total N	Column Total: Percent of All Students
9	32	62.7	19	37.3	51	21.6
10	59	49.6	60	50.4	119	50.4
11	39	59.1	27	40.9	66	28.0
TOTAL	130	55.1	106	44.9	236	100

- There is a higher percentage of male than female students in the program. Male and female students are almost equally distributed in grade 10 only.
- Half of the program students are in grade 10.

Program students are all Hispanic, and an overwhelming majority were born outside the continental United States. Their home language is Spanish. Approximately 81 percent of the students were born in the Dominican Republic. Of these, approximately half are from rural areas and had little, if any, access to formal schooling in their country. Recent immigrants from rural areas reportedly maintain close family ties, and are more likely than students who have lived in the United States for extended periods of time to live with both parents. Other participants are from Puerto Rico, Cuba, Central or South American countries, or were born in the United States. The ethnic composition of the program reflects the proportions in the community, where Dominicans are an overwhelming majority and the South American population is increasing. Table 3 presents the number and percentages of students by country of birth.

According to staff reports, students need additional counseling to help them set realistic academic, vocational, and professional goals, understand how to achieve them, and adapt to the complexity and diversity of the city. They must learn to be able to move from very personal relationships to the more impersonal style of a school or work setting. Five students were interviewed by the program evaluator. These students seemed to have a clear view of their situations: of being overage for their grade; of their struggle against the language barrier and economic difficulties. They expressed their needs, and suggested ways in which these could be better satisfied. Table 4 presents the number of students by age and grade.

TABLE 3

Number and Percentages of Students by

Country of Birth

Language: Spanish

Country of Birth	Number	Percent
Dominican Republic	193	81
Puerto Rico	5	2
Cuba	12	5
Honduras	2	1
Guatemala	1	1
El Salvador	5	2
Panama	1	1
Colombia	5	2
Ecuador	10	4
U.S.	3	1
TOTAL	237	100

.All students are Hispanic and their home language is Spanish. Eighty-one percent were born in the Dominican Republic.

.Only three students were born in the United States.

TABLE 4

Number of Students by Age and Grade

Age	Grade 9	Grade 10	Grade 11	Total
14	5	4	1	10
15	7	8	1	16
16	13	29	2	44
17	17	40	15	72
18	7	28	22	57
19	2	9	20	31
20		2	5	7
Total	51	120	66	237
Overage Students				
Number	26	39	25	90
Percent	51	33	38	38

Note. Shaded boxes indicate expected age range.

- Thirty-eight percent of the students are overage for their grade. The highest percentage of overage students is in grade 9, followed by grade 11.

- Most program students are 17 years of age. Of these, most are in grade 10.

In general, students' motivation to learn seems to be high. They form closely-knit groups, and take part in activities inside and outside school. They have strong patriotic feelings toward their countries of birth, and tend to view personal achievement as an aspect of national achievement. Language seems to be a strong factor promoting social cohesiveness. English is used only in the classroom when used as the medium of instruction, or with English-dominant teachers or peers.

In their native language, program students range from those who are functionally illiterate, to those who are one to two years below grade level, to those who read at the twelfth-grade level and can perform in Spanish literature courses. The spectrum of students' proficiency in English ranges from those who know little or no English, through those who are enrolled in an intermediate level of E.S.L. (approximately 61 percent), to those who have enough fluency to be at least partially mainstreamed (20 percent). The range of skills is further broadened by the fact that there may be a gap between oral skills and literacy.

STAFF CHARACTERISTICS

Table 5 summarizes the education, certification, and experience of the professional and paraprofessional staff. The bilingual program staff includes the director, resource coordinator, two general high school equivalency teachers, three subject-area teachers, two family and two teacher assistants, and a bilingual secretary.

TABLE 5

Staff Characteristics: Professional and Paraprofessional Staffs

Function(s)	% Time Spent in Function	Date Hired	Education	Certification & License	Years of Monolingual Experience	Years of Bilingual Experience	Years of Experience (ESL)
Project Director	100	9/79	B.A. & M.S. Education	NYS Spanish DHS	14	3	None
Bilingual Resource Coordinator	100	9/79	B.A. M.A. E.S.L.	NYS E.S.L.	16	3	23
Teacher G.E.D.	100	9/80	B.A. & M.A. Education	NYS NYC Spanish DHS	12	4	2
Teacher G.E.D. Spanish Teacher Grade Advisor	30 30 40	9/70	B.A. M.S. Bilingual Ed. M.S. Guid. Counselor	DHS Spanish NYC Bilingual Teacher School/Community Relations	12	12	1
Social Studies Teacher	100	10/75	B.A. Lib. Arts M.A. Bilingual Ed.	Bilingual Social Studies NYC Spanish DHS	7	6	1
Bilingual Science Teacher	100	2/81	B.A. Science	NYS Spanish HS	8	1	None
Math Teacher	100	2/81	B.A. Spanish M.A. Spanish	NYC Spanish DHS E.S.D. DHS	4	2	1
Family Assistant	100	9/80	H.S.	Not Applicable	2	2	None
Education Assistant	100	11/78	H.S.	Not Applicable	4	4	1
Education Associate	100	2/75	A.A. Liberal Arts	Not Applicable	7	2	None
Family Assistant	100	3/80	B.A. Education	Not Applicable	3	2	None
Bilingual Secretary	100	10/79	A.A. Liberal Arts	Not Applicable School Secretary DHS	None	4	None

- All staff members, except one teacher who also functions as grade advisor, are assigned to their functions 100 percent of their time.

- All professional staff, except one teacher, hold a masters' degree, are certified by the city and or state in an area of education, and have extensive experience in bilingual and monolingual education.

- Two teachers were teaching out of their area of specialization. Both the mathematics and the science teachers were educated and licensed for Spanish high school education.

- All paraprofessional staff hold at least a high school diploma. Of the five staff members, two hold associate's degrees and one a bachelor's degree. All are experienced in education except the program secretary, who has experience in bilingual secretarial services.

- All program staff are bilingual in English and Spanish and all except one professional are Hispanic.

III. PROGRAM DESCRIPTION

PHILOSOPHY

The project has an articulated philosophy of bilingual education: to expedite the acquisition of English through native- and second-language instruction. The aim is to assist the student in making an adjustment to all-English instruction and completing graduation requirements. Practice, in fact, varies according to individual need and ability. Students who have least proficiency in English receive more instruction in their native language. In general, it is expected that during the first two years of program participation, students will receive content-area instruction primarily in the native language, while taking E.S.L. classes. During the third year, they are expected to function in content-area classes taught with an E.S.L. approach, which considers their level of ability in English. During their fourth year they are expected to function effectively in all-English classes in the subject areas.

The transitional philosophy is agreed upon by school administration and faculty; however, there are differences of opinion as to how best to teach bilingual students and how to achieve transition. The program's E.S.L. staff holds that bilingually taught courses should use more E.S.L. methodology. The native-language teaching staff feels that more content-area work should be incorporated in the E.S.L. classes to make English-language learning meaningful while reinforcing knowledge of content areas. Both the principal and the project director advocate a strongly transitional approach which does not make hasty transfers of students into all-English classes. Both are in agreement that a bilingual education

is necessary for this population. Students who lack cognitive development in the native language particularly need the program's services to facilitate acquisition of English-language skills.

HISTORY

Bilingual content-area courses have been offered at George Washington since 1970. Prior to that, the school had an E.S.L. department. Due to organizational restructuring, E.S.L. was placed under the supervision of the mathematics chairperson, and later, in 1979, under the communications chairperson. The former E.S.L. chairperson has become resource specialist to the bilingual program, and spends most of his time teaching E.S.L. The structural changes through which the E.S.L. program has evolved are not viewed favorably by some staff members; however, as the principal stated, "regardless of differences in opinion, it works."

In 1978 the administration appointed a committee to study and recommend a coordinated bilingual education program which would collaborate with all the school's departments. The resulting proposal was funded by Title VII from 1979 to 1981. In 1981 a new proposal was funded by Title VII for students who had not previously been served by this source. The 1981-82 school year was its first year of operation. However, the new program benefited from the existing program as well as from the school's history of bilingual education.

PROGRAM ORGANIZATION

The program now functions as part of the foreign languages department. Its director, who is acting assistant principal, reports to the principal and works with the individuals who chair other departments. The

project director has day-to-day responsibility for program administration, supervision of program staff, curricular, and fiscal matters. He has no responsibility for supervision of content-area instruction, but takes part in the principal's cabinet meetings with assistant principals for the content areas, guidance, and administration. Figure 1 illustrates the program organization.

PROGRAM GOALS AND OBJECTIVES

Program goals, as stated in the proposal, may be summarized as follows:

1) to provide a viable bilingual instructional program to a traditionally bypassed student population in order to meet their academic, high school certification, and future employment needs;

2) to develop a cadre of trained instructional and support services staff in the areas of school drop-out prevention, career education, and individualized instruction of LEP students;

3) to promote positive attitudes among students toward themselves, school, and education; among staff toward students and bilingual education; among parents toward their children, school, and education;

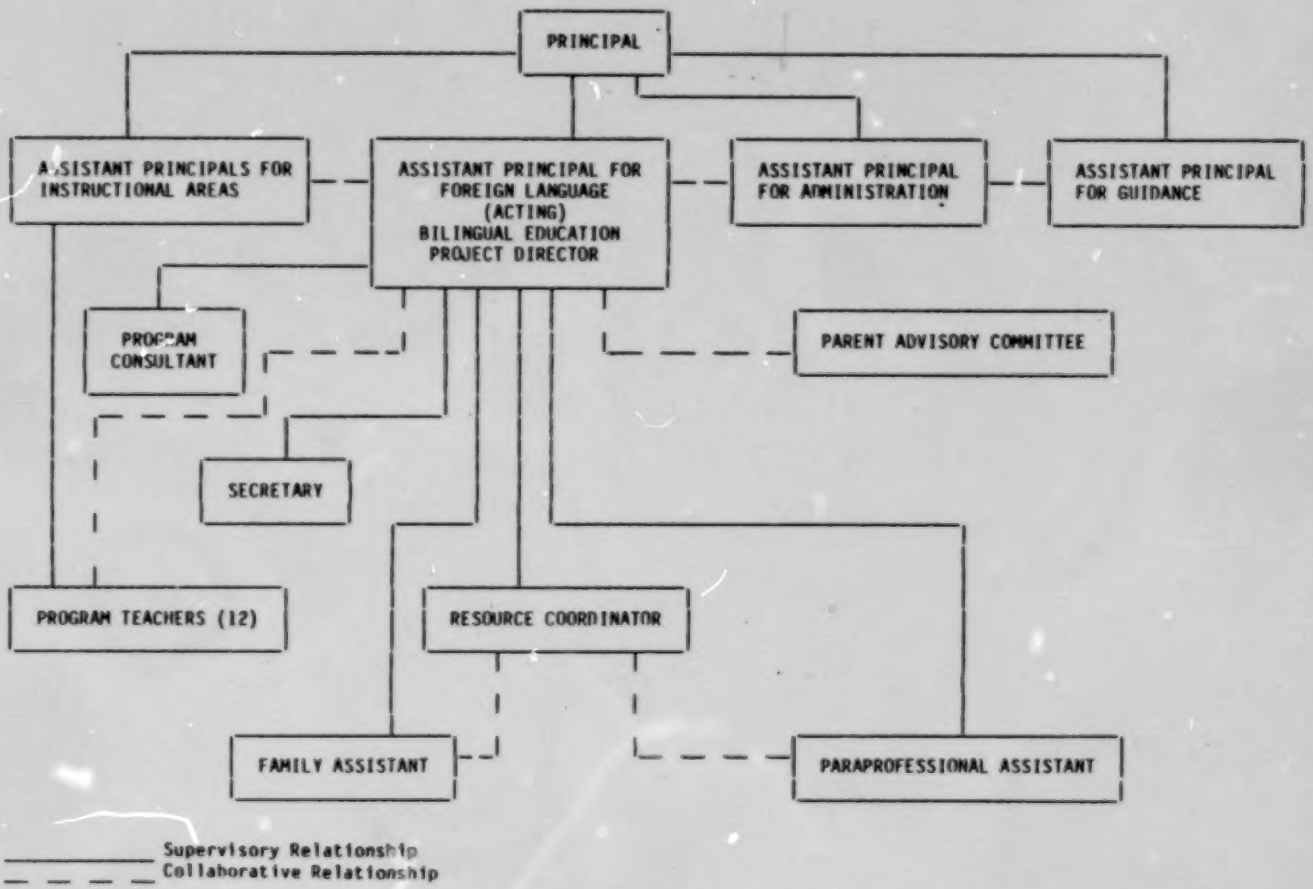
4) to promote the replication of a bilingual high school program model which will serve as a resource to the school and to other high schools; and

5) to strengthen the school's capacity to sustain the program.

Specifically, the proposed program lists the following objectives for evaluation during the 1981-82 period:

Figure 1

Bilingual Program Organization within George Washington High School



1) to increase the proportion of students passing the high school equivalency examination to 65 percent of all students enrolled in the high school equivalency preparation class;

2) to increase the proportion of program students ready for transition into either the tax-levy bilingual or monolingual programs to 50 percent;

3) to improve achievement in English proficiency of students who participate in high school equivalency preparation classes for one full year as indicated by an increase of statistical significance (α=.05) as measured by the New York City Reading Test (P.S.E.N.);

4) to increase the proportion of students passing the mathematics criterion-referenced tests to 65 percent of all students enrolled in the mathematics classes;

5) to improve achievement in English proficiency of at least 65 percent of the students enrolled in E.S.L. classes as indicated by the mastery of at least one objective per month of treatment on the Criterion Referenced English Syntax Test (CREST);

6) to increase reading achievement in Spanish as indicated by a statistically significant (α= .05) difference between pre-post tests scores on the Interamerican Series Prueba de Lectura;

7) to increase the proportion of students passing the New York State Regents Competency Test in English and Mathematics to 65 percent of students enrolled in the college/career orientation program (bilingual students of grades 10, 11, and 12).

FUNDING

The program draws on four sources of funding: Title I and Title VII of the E.S.E.A., Chapter 720, and tax-levy monies. Table 6 illustrates funding sources including the number and type of personnel and subject areas offered.

TABLE 6

Funding of the Instructional Component

Subject Area	Funding Source	Number of Personnel: Teachers	Paras
E.S.L.	Tax Levy Title I	0.5 3	3
Reading (English)	Title I	2	2
Native Language (Spanish)	Tax Levy	3	-
Math	Title I Chapter 720	1 1	1 1
Social Studies	Chapter 720	1	1
Science	Chapter 720	1	1

- Three combined funding sources support 12 1/2 teaching positions and 9 paraprofessional teacher assistant positions.
- The largest amount of funding is provided by a federal source, Title I of the E.S.E.A.; the second largest is provided by a state source, Chapter 720; the rest is provided by municipal tax-levy funds.
- Title I funding is used primarily for the areas of E.S.L. and reading, while Chapter 720 is used for the content areas, and tax-levy for the native language arts (Spanish).

Table 7 presents the funding sources of the non-instructional component. Although the table lists these staff in order to document Title VII funding, tax-levy positions contributed to supervision (content-

area and E.S.L. assistant principals) and student support services (guidance and counseling staff).

TABLE 7

Funding of the Non-Instructional Component

Area	Funding Source	Personnel: No. & Title(s)
Administration & Supervision	Title VII	1 Project Director
Supportive Services	Tax Levy Title VII	0.5 Resource Coordinator 1 Paraprofessional
Staff Development	Title VII	1 Consultant (part-time)
Parental & Community Involvement	Title VII	1 Family Assistant
Secretarial Services	Title VII	1 Bilingual Secretary

- Title VII funds the non-instructional areas typically supported by this source.
- One half-time resource coordinator, a position typically supported by Title VII, is supported by tax-levy money.
- Title VII funds support a total of one professional and three paraprofessional full-time positions, and one education consultant for 25 days.

The reported allocation of funds meets the requirements of the funding and fiscal agents. Financial reports are submitted to the various agencies separately.

IV. INSTRUCTIONAL COMPONENT

STUDENT PLACEMENT, PROGRAMMING, AND TRANSITION

The project attempts to identify those students who require bilingual services when they enroll in the school. A series of placement tests and interviews are administered to potential candidates. Students who fall below the twenty-first percentile on the Language Assessment Battery (LAB) in English and who attain an acceptable score on the Spanish reading test, La Prueba de Lectura, are admitted to the project. The guidance counselor's and teachers' recommendations, as well as parents' and students' own preferences, are taken into account in the selection process.

The project presently serves Spanish-dominant students; students dominant in French/Creole, Urdu, and Oriental languages, who are enrolled in the school in relatively small numbers, are provided with E.S.L. instruction and are assigned to content-area courses in the mainstream.

Students' programs are assembled by the bilingual guidance counselor on the basis of placement tests, recommendations by the bilingual faculty, and the school system's graduation requirements. The student's academic record and course availability are also taken into account.

Students' programs are fairly uniform at each grade level. Departures from this pattern result from individual abilities; for example, a student may need remedial work in math, or may be advanced in math beyond the sequence generally taken at his or her grade level. Fifty students who participate in the drop-out prevention program are programmed for high

school equivalency preparation classes. These programs consist of four class periods per day, including two E.S.L., one mathematics, and one Spanish class. (These classes are complemented by career orientation and supportive services.)

Tracking takes place in language courses and in social studies. Due to the considerable volume of reading required in social studies courses, two versions of some of these classes are offered: assignment to these tracks is based on the individual student's reading proficiency in the native language, overall academic performance, and attendance record. The student's educational objectives are also considered: the tracks are designed to meet the needs of academically or vocationally oriented students. It is expected that academically oriented students will make the transition to a full English program more rapidly.

MAINSTREAMING

The bilingual project's goal is to mainstream students fully as soon as their linguistic proficiency permits effective participation in English-language courses. The criteria applied for full mainstreaming include: a LAB score in English above the twenty-first percentile; recommendation by the bilingual staff and guidance counselor; successful performance in one or more mainstream class; and student and parental approval. The number of years that a student has lived in the United States is also considered: if after five or six years students are still attending bilingual classes, their records are carefully examined.

Students are partially mainstreamed before a full transition is attempted. At this stage, very few students take one content-area course in English. In 1981-82, only two percent of program students were registered in mainstream classes. Some of these classes were advanced courses such as American studies, not available in the bilingual program; students are assigned to these courses at the discretion of the guidance counselor. All program students took physical education in the mainstream, 14 enrolled in mainstream art classes, six in American studies, four in band, two in record keeping, and two in accounting.

Transition into greater English usage in bilingually taught courses is encouraged by the administration. This is presently achieved by a translation approach, the use of some English for lectures, and more assignments of English reading and writing, with higher levels of difficulty as students progress. However, teachers presently use whatever approach they consider appropriate. Once students complete the E.S.L. sequence, they are fully mainstreamed. However, since the project was in its first year in 1981-82, no students had yet been fully mainstreamed. When students do exit the program they will remain eligible to use the services of the bilingual resource center, to receive bilingual guidance, and to take part in the project's extracurricular activities.

INSTRUCTIONAL OFFERINGS

Table 8 describes the four levels of E.S.L. offered to all bilingual students during the fall 1981 semester. (Similar courses were offered in the spring.) Each level emphasized particular skills, i.e. oral English or reading and writing skills.

During the spring semester, the evaluator observed two E.S.L. classes: E.S.L. 4 and E.S.L. for high school equivalency preparation. The classes differed in approach and type of students. The E.S.L. 4 teacher used a traditional audio-lingual approach, drilling students with exercises in identification, and transformations of language structures. There was little natural use of English for functional purposes. The teacher conducted the class in English. Students used English only to perform the drills, and used Spanish among themselves. The 21 students observed in this class were said to be typical of the program, with the exception that they had progressed to the most advanced E.S.L. level.

The other E.S.L. class included 14 students who either returned to school to prepare for the high school equivalency test or had opted to take the equivalency exam rather than to continue in the program toward graduation. The teacher worked with the whole group, but also moved around the room to reach each individual. Assistance from an aide facilitated individualized instruction. The teacher assigned a dictation and translation activity; he used English except in situations (about 15 percent of class time) in which Spanish was considered essential or useful to convey meaning. His assistant and the students used Spanish almost exclusively; students used only English to answer the teacher's questions. During discussions, translation was used frequently. Explanations about the English language were given by the teacher in Spanish.

Native-language instruction for all Title VII and non-Title VII bilingual program students is offered by the foreign language department.

Two double-period courses are offered for students whose native-language skills are limited. The department also offers intermediate and advanced Spanish classes, and courses in Spanish literature.

Staff members identified two major problems in the area of native-language instruction. The first is said to be the inappropriateness of textbooks aimed at students learning Spanish as a foreign language, particularly at the third and fourth levels. The other is the need for training of foreign language teachers to teach the language to native speakers.

Table 9 presents the content-area courses taught bilingually during 1981-82. Program students were integrated with the non-Title VII bilingual program students.

TABLE 8

Instruction in English as a Second Language and English Reading (Fall 1981)

Courses	Number of Classes	Average Class Reg.	Class Pds./ Week	Description	Curriculum or Material in Use
E.S.L. 1	7	21	14	Beginning English Four Language Skills	English Changing World 1 (Scott - Foresman)
E.S.L. Reading 1	6	24	6	Beginning English Reading & Writing Skills	Department Developed
E.S.L. 2	7	17	14	Advanced Beginning English Four language Skills	English Changing World 2 (Scott - Foresman)
E.S.L. Reading 2	5	20	5	Advanced Beginning English Reading & Writing Skills	Department Developed
E.S.L. 3A	8	20	8	Intermediate English Reading & Writing	Comp-Longman/Short Stories Journey to Frame - (Globe)
E.S.L. 3B	8	20	8	Intermediate English Four Language Skills	English Changing World 3 (Scott - Foresman) & Elem Comp. (Blanton)
E.S.L. 3 Speech Improvement	4	35	4	Pronunciation: Phonemes, Rhythm Intonation	Department Developed
E.S.L. 4A	5	21	5	Advanced English Reading & Writing	Comp-Longman/Short Stories Turning Point - (Globe)
E.S.L. 4B	5	21	5	Advanced English Four Language Skills	English Changing World 4 (Scott - Foresman) & Elem Comp. (Blanton)

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.There are four levels of E.S.L. instruction which are offered on an average of six classes per level each term.

.Class register average is 22 students, ranging from 17 to 35 students. The upper limit is reached only in the most specialized course in the sequence, speech improvement.

.Class periods (45 minutes each) average 8 weekly. The highest number of periods is offered in the beginning levels emphasizing the four language skills. The least number of periods is offered in the specialized speech course for intermediate level students.

.Curriculum and materials in classroom use are commercially and/or department-developed.

.Program students are dispersed throughout these classes. Most are enrolled in the intermediate level courses, but they vary in range from E.S.L. 1 to E.S.L. 4.

TABLE 9

Bilingual Instruction in Content Areas

(Fall and Spring Semesters)

Fall Courses	Number of Classes	Average Class Reg.	% of Class Time Spanish is Used	Hours Per Week	% of Material in Spanish
Fundamental Math	3	32	75	15	50
Algebra A	2	30	50	15	50
Fundamental Math A	3	33	50	15	50
Fundamental Math D	2	20	50	10	50
General Science I	5	30	50	25	50
New York City	5	34	95	3	100
European History	1	16	85	2	90
Global History II	4	25	90	8	90

TABLE 9 (continued)

Spring Courses	Number of Classes	Average Class Reg.	% of Class Time Spanish is Used	Hours Per Week	% of Material in Spanish
History Global I	5	35	95	100	Yes
Western Civilization	1	16	80	100	Yes
Global History II	4	25	80	100	Yes
Fundamental Math A	3	20	50	50	Yes
Fundamental Math B	3	30	75	0	No
Fundamental Math C	2	30	50	50	Yes
Fundamental Math D	2	15	50	50	Yes
Algebra A	3	30	50	50	Yes
Algebra B	2	30	50	0	Yes
General Science II	5	25	50	50	Yes

.Bilingual instruction in the content areas included eight courses in the fall and ten courses in the spring.

.Basic introductory courses dominated offerings in the fall although the social studies courses varied from a basic introduction to the city to an advanced level of history.

.The average fall register per class was 34 students; spring classes had an average register of 27 students.

.In fall content-area classes Spanish was used on an average of 70 percent; in spring, Spanish use averaged approximately 65 percent of class time.

.All courses offered bilingually (except introduction to New York City) were required for graduation. All teachers reported to have had at least 50 percent of the materials used available in Spanish, except one, who reported no materials available in fundamental math B and algebra B.

.Materials used in class were thought to be appropriate to students' reading levels, except in the fundamental math B course in the spring.

During the spring semester, the evaluator observed two classes taught bilingually: global history I and general science II. In the history class, the teacher used Spanish consistently for all functions, i.e. opening the lesson, explanations, verification of understanding, etc. Students used Spanish exclusively, both with the teacher and among themselves. The teacher used a lecture-discussion method in working with the whole group; approximately half of the 27 students seemed to participate actively. The materials observed in use consisted of teacher-prepared mimeographed sheets and the blackboard. It was reported that the same teacher had developed a 36-unit course of study intended to introduce students to life in New York City, which was not in use at the time of the observation.

The science teacher described language policy as bilingual. Oral work in the class observed was almost exclusively in Spanish, except for some vocabulary translation. Instructions and questions were presented in written form in English. Students used Spanish with the teacher and among themselves; although a few English words were heard. Students were using sixth-grade science texts published in Spain, they were also using mimeographed sheets with an English title, followed by Spanish text and instructions. Both English and Spanish were used on the blackboard. The lesson consisted of the identification of parts and functions of the ear.

There is no explicit language policy for instruction in the bilingually taught courses. Language usage depends on teachers' preference

or judgment of students' needs. The director reports that language use may fluctuate from virtually no English (if teachers fear that students would miss content), through constant translation of materials presented, to a balanced combination of English and Spanish. Some students, however, were enrolled in a subject area course taught exclusively in English.

The quality of interaction between teachers, program staff, and students is an important feature of the instructional program. Many of the professionals and paraprofessional faculty and staff are Hispanic; the students' culture is therefore reinforced in and out of the classroom. Teachers and staff are said to relate to students very personally and to assume responsibilities, such as academic, personal, and vocational orientation, beyond those required of them. They have concentrated heavily in the development of study skills and have prepared "how-to" sheets entitled "Recetas para su exito" (recipes for your success).

V. NON-INSTRUCTIONAL COMPONENT

CURRICULUM DEVELOPMENT

The program adapted the school system's curricula, and used commercially-developed materials as well. Presently, teachers assisted by the program consultant are adapting a lesson planning guide to encourage teachers to incorporate "career infusion" in content-area courses. Texts, teacher guides, and other materials developed by the Office of Bilingual Education have been a major resource.

SUPPORTIVE SERVICES

A bilingual guidance counselor and bilingual grade advisor, both supported with tax-levy monies, provided support services to participating students. One Title VII family assistant makes home visits. These staff members work with students to facilitate cultural adaptation; their premise is that newcomers' inability to understand and adjust to the demands of an unfamiliar cultural setting inhibits learning. In an interview with the evaluator, the guidance counselors indicated that their limited time was spent mainly on academic advisement. Students need personal counseling to help them adjust to a complex school system and metropolitan city life; those who had never attended school before or had attended only the lower grades were most in need -- both academically and emotionally.

Students receive individual and group guidance. Career counseling is also available to students. A New York State Employment Service counselor,

a school employment counselor, and representatives from community colleges were invited to speak to students about career opportunities and what they must do to secure them. Only the school counselor meets with students individually. The director was instrumental in placing 15 students in summer camp programs which train students in summer camp work and pay them for their services.

A full-time family assistant makes home visits to advise parents when students are failing courses, to discuss absenteeism, chronic truancy, or students' decisions to drop out of school. They make special efforts to visit homes when phone contact is not possible, when a student has been out of school due to extended illness, or when problems in the home appear to be affecting students' performance in the program. Staff members may phone or write to parents with information about program activities, or to discuss students' academic progress, attendance, or discipline. Some 30 to 50 calls are made each week to students' homes; telephone contact tends to be more frequent when report cards are issued, at which time parents often initiate calls.

The project utilizes outside resources to widen the scope of supportive services. The Medical Center at Columbia Presbyterian Hospital is used for referrals of physical or psychological problems and student pregnancies. Charles Evans Hughes High School Testing Center is used for testing high school equivalency program students. Hostos Community College resources are used for career and academic orientation. Linkage with this college has been established in order to facilitate admission of program graduates in the future.

The director believes that the project cannot present satisfy students' needs due to its limited resources. Students are said occasionally to leave the program (and school) due to financial need. The program has not been able to establish a link with potential part-time employers in order to alleviate this condition. Some students have been asked by their families to leave home, and need referrals to agencies that may help them find living arrangements.

An outstanding feature of the support services component is the personal attention to students and the congruence of language and culture of students and staff. Asked how she thought she could reach program students, the family assistant responded, "I deal with them like my own kids. I talk to them with my face, with my hands, and with my heart." She spoke with them in Spanish -- their own language.

STAFF DEVELOPMENT

A further objective of the bilingual project is the ongoing development of the staff's qualifications. An initial orientation meeting was held for the entire staff in the fall. Monthly department meetings were attended by both professional and paraprofessional staff members; teachers also attended semi-annual school faculty meetings. The project consultant conducted training sessions for content-area teachers on a monthly basis. The purpose of these sessions was to integrate career awareness into all areas of the curriculum. The consultant would follow up the sessions by making observations of teacher performance in the classrooms and providing feedback. The director held several meetings throughout the year in which program implementation strategies were discussed with teachers and parents.

Table 10 lists staff development activities in school which took place during 1981-82. Table 11 lists those activities which took place outside of school at the New York City Board of Education. Table 12 lists university courses in which program staff was enrolled, and which were paid by the school system's Career Ladder Program. (Title VII funds did not support university enrollment.)

PARENTAL AND COMMUNITY INVOLVEMENT

The bilingual project sponsors a parent-student advisory committee whose members in 1981-82 included four parents, three students, two teachers, and the project director. The committee met ten times during the school year to follow and offer advice on program implementation. Parents were encouraged to take part in the school's Saturday morning adult education program which included E.S.L., United States history and culture, and a general equivalency diploma program offered in Spanish. Attendance was initially about 20 parents; however, as the school year progressed, it declined and remained constant at eight parents. At present, one teacher runs the adult education program, and a Spanish assistant aides in recruitment.

Parents participated in other school activities. All of the school P.T.A. is Hispanic; the vast majority of the parent members are parents of bilingual program students. They took part in activities such as open school day, Pan American Day Assembly, Puerto Rican Discovery Day celebration, Dominican Independence Day celebration, and attended events in which their children presented literary works or dramas.

TABLE 10

Staff Development Activities in School

Strategy	Dates of Sessions	No. and Title of Staff Attending	Speaker or Presenter	Frequency of Number of Sessions	Goal
In-Service	Sept. & October 1981 and Febuary 1982	A total of 10 bilinqual content-area teachers and paraprofessional staff	Project director Project consultant Resource coordinator Bilinqual guidance counselor	Four sessions in total	To set up the program plans and to clarify the objectives to all involved
Dept. Meetings	Sept. 16, 1981 Oct. 28 Nov. 9 Dec. 7 Jan. 11, 1982, Feb. 4, March 8, April 5, May 10, June 7	Bilinqual staff, teachers, para-professionals, Family assistant	Project coordinator Principal	Once a month	To deal with matters pertaining to project as well as evaluation & objectives
Other Demonstration lessons, Lectures, etc.	Training component Advisory Committee	Project consultant and teachers	Consultant	Once a month	To carry-out career infusion in the areas of math, science, and social studies
	Parents' Meeting	P.A. President Bilinqual teachers in content areas, Spanish, and E.S.L.	Project director and principal	By appointment	To discuss with teachers and parents the program objectives

TABLE 11

Staff Development Activities Outside School

Strategy	Descripton or Title(s)	Sponsor/Location	Speaker or Presenter	No. and Titles	Number or Frequency of Sessions
Workshops held outside school	Budget and Operations Procedures - Federal & State Regulations on Bilingual Education	NYC Board of Education Office of Bilingual Education	Awilda Orta, Director Genis Melendez, Assistant Director Oswaldo Malave	Project Director Bilingual Resource Coordinator	2
	Consent Decree Testing	NYC Board of Education	Office of Testing Personnel	Same as above	1

TABLE 12

University Courses Attended by Staff (Professional and Paraprofessional)

Staff	Institution	Goal	Frequency	Courses(s)
Secretary	City College	Education Major	Twice weekly	Spanish theatre, Latin American Literature
Paraprofessional	City College	Education Major	Twice Weekly	English 110, Women's Studies
Paraprofessional	City College	English Major	Twice Weekly	Educational Psychology

Parents have initiated meetings with the principal through the program advisory committee or the school P.T.A. whenever they felt that the program had special needs. They were able to secure more space for the program, and more police security around the school during opening and closing hours.

An average of five parents contacted the bilingual office each day. The project encouraged parental participation through phone calls and home visits, as well as through mailings and the distribution of a newsletter.

Parental involvement in school events has been adversely affected by several factors. Many people feared attending school functions in the evening, when security problems discouraged others from venturing out. Financial problems, childcare responsibilities, employment schedules, and other problems affected participation. A further impediment was the parents' assumption, based on experience in their native country, that education is the sole responsibility of the school. Many parents are said to function in the same style they did in the rural areas of their home countries. Even though Spanish was spoken by the program staff, they still felt somewhat alienated from the school. However, most were very responsive when individually called to come to school for special reasons. The teacher in charge of adult education, the principal, and the director agree that with greater resources to reach out and to train parents, the program could be significantly more effective in involving parents.

ATTITUDINAL INDICATORS

In their interactions with program staff, it is reported that most students are not very assertive. They show little initiative or leadership

quality. They lack the motivation necessary to be self-guided and constantly seek orientation. According to one staff member, they "do little more than what they are informed is possible." Many are said to be shy and to be afraid of being reprimanded. Peer interaction observed, however, indicated otherwise. Students were very expressive verbally; they initiated verbal interaction frequently with the teacher and peers. They appeared to be very social (rather than task-oriented), cooperative, and to seek working with others. They used a variety of strategies to sustain interaction, such as changing tone of voice or making humorous comments. They express trust in bilingual teachers and staff.

Students' attendance was quite high throughout the school year, and in general exceeded that of the student body as a whole. Staff members stated that truancy is less prevalent in the bilingual program than in the mainstream.

Nearly one-third of the bilingual population took part in extra-curricular activities, including basketball, swimming and track, as well as the Spanish and the international bilingual clubs. Some signed up for a summer sports camp program, run by head coaches, including the program director, from different high schools and colleges in the city.

Students' achievement of honors further reflects the program's impact. In 1981-82 bilingual students received 29 honor roll certificates. Several students participated in the Spanish literature contest and won awards.

Approximately half of the bilingual students held after-school jobs and about 75 had summer jobs. Drug and alcohol abuse were not apparent problems; neither was gang membership. The dean of girls reported that one out of every six female students suspended is from the bilingual program, despite the fact that it is the largest program in the school. Suspension rates increase as length of residence in the United States increases. The dean described the process as one of acculturation of criminal activity in the community; one in which there are progressively increasing infractions.

Participants project a positive attitude toward the program. They showed no hesitation in visiting the program office to seek help in academic, school-related, or personal matters. In an interview with the evaluator, the students referred to the program as "our program," and discussed ways in which it could be improved. In addition, they seem to be clearly identified with their national origin groups, frequently speaking of "my country" and "us" or "our" when referring to national groups.

Data were collected on reasons for leaving the program during 1981-82. Table 13 presents these data. The percentage of students dropping out was quite low: five percent of total program population. This is a good indication of the program's achievement in its drop-out prevention function and, further, of how most students may feel about the program.

TABLE 13

Number of Students and Reasons for Leaving the Program by Grade

Reason For Leaving	Grade 9	Grade 10	Grade 11	Total	Percent
Discharged/ transferred to altern. program	1		6	7	9.5
Transferred to another school	1	2	2	5	6.8
Passed H.S. Equivalency		2	12	14	18.9
Returned to native country	5	5		10	13.5
Discharged (Job)	2	5	5	12	16.2
Discharged (Marriage)	1	1	4	6	8.1
Truant	1	2		3	4.1
Dropout	7	4	1	12	16.2
Other	2	1	2	5	6.8
Total	20	22	32	74	100
Percent	27.0	29.7	43.2		100

.Most students who are reported to leave the program do so because they pass the high school equivalency exams. An equal number of students were discharged for employment or simply dropped-out.

.Of the students who leave the program, most are in grade 11. These eleventh graders are mostly those who pass the equivalency exam followed by those who transfer to an alternate program.

VI. FINDINGS

ASSESSMENT PROCEDURES, INSTRUMENTS, AND FINDINGS

The following section presents the assessment instruments and procedures, and the results of the testing to evaluate student achievement in 1981-1982.

Students were assessed in English-language development, growth in their mastery of their native language, mathematics, social studies, and science. The following are the areas assessed and the instruments used:

English as a second language -- CREST (Criterion Referenced English Syntax Test), Levels I, II, III)

Reading in English -- The program proposed to measure gains in English reading made by students in High School Equivalency preparation classes with the New York City Reading Test. However, no data were submitted to measure this objective.

Reading in Spanish -- Interamerican Series, Prueba de Lectura (Total Reading, Forms BS and AS, intermediate and advanced levels, 1950 version)

High School Equivalency Examinations in Spanish writing, reading, and mathematics

Mathematics performance -- Teacher-made tests

Science performance -- Teacher-made tests

Social studies performance -- Teacher-made tests

Attendance -- School and program records

The following analyses were performed:

On pre/post standardized tests of Spanish-reading achievement, statistical and educational significance are reported in Table 16.

Statistical significance was determined through the application of the correlated t-test model. This statistical analysis demonstrates whether the difference between pre-test and post-test mean scores is larger than would be expected by chance variation alone; i.e. is statistically significant. It does not represent an estimate of how students would have performed in the absence of the program. No such estimate could be made because of the inapplicability of test norms for this population, and the unavailability of an appropriate comparison group.

Educational significance was determined for each grade level by calculating an "effect size" based on observed summary statistics using the procedure recommended by Cohen.* An effect size for the correlated t-test model is an estimate of the difference between pre-test and post-test means expressed in standard deviation units freed of the influence of sample size. It became desirable to establish such an estimate because substantial differences that do exist frequently fail to reach statistical significance if the number of observations for each unit of statistical analysis is small. Similarly, statistically significant differences often are not educationally meaningful.

Thus, statistical and educational significance permit a more meaningful appraisal of project outcomes. As a rule of thumb, the follow-

*Jacob Cohen. Statistical Power Analysis for the Behavioral Sciences (Revised Edition). New York: Academic Press, 1977 Chapter 2.

ing effect size indices are recommended by Cohen as guides to interpreting educational significance (ES):

a difference of 1/5 = .20 = low ES

a difference of 1/2 = .50 = moderate ES

a difference of 4/5 = .80 = high ES

The instrument used to measure growth in English language was the Criterion Referenced English Syntax Test (CREST), which tests mastery of specific syntactic skills at three levels. Material at the beginning and intermediate levels of the CREST is broken down into 25 objectives per level, such as present-tense forms of the verb "to be" (Level I), or possessive adjectives and pronouns (Level II). Material at the advanced level (Level III) is organized into 15 objectives, such as reflexive pronouns. At each level, students are asked to complete four items for each objective. An item consists of a sentence frame for which the students must supply a word or phrase chosen from four possibilities. Mastery of a skill objective is determined by a student's ability to answer at least three out of four items correctly.

This report provides information on the average number of objectives mastered and the average number of objectives mastered per month of treatment by students who received Title I E.S.L. instruction in fall and spring semesters (Tables 14 and 15). Information is also provided on students' performance at the various test levels. Performance breakdowns are reported by grade and level for students who were pre- and post-tested with the same test level.

The results of High School Equivalency Tests in Spanish reading, writing, and mathematics are reported in Tables 17 and 18 by grade and percent of students passing by semester.

Rates of success of students in mathematics, science, and social studies courses taught in the bilingual program are reported by grade in Tables 19 and 20. These tables contain the numbers of students reported as taking the relevant courses and the percent passing for fall and for spring courses separately. Data are also reported for students who were taking mainstream courses in the same areas but received services through the program (Table 21).

Comparisons of the attendance rates of program participants with that of the school as a whole are presented by grade in Table 22. This table contains average rates for the school and for the participant groups by grade, the percentage point difference between school and program attendance, value of the z statistic, and its level of statistical significance. Although the z statistic used here is slightly different than that described above, it again indicates the extent to which the observed percentage differences vary from what might be expected by chance.

TABLE 14

Performance of Students Tested on the Criterion Referenced English Syntax Test (CREST): Average Number of Objectives Mastered by Grade and Test Level (F.S.L. Title I Spanish-Speaking Students, Fall)

		LEVEL I					LEVEL II					LEVEL III					TOTALS		
			Average Number of Objectives Mastered					Average Number of Objectives Mastered					Average Number of Objectives Mastered					Average Number of Objectives Mastered	
Grade	Average Months of Treatment	N	Pre	Post	Gain	Gain/ Month	N	Pre	Post	Gain	Gain/ Month	N	Pre	Post	Gain	Gain/ Month	N	Gain	Gain/ Month
9	3.2	6	12.0	17.0	5.0	1.7	12	10.1	13.1	3.0	0.9	10	6.3	9.9	3.6	1.0	28	3.6	1.1
10	3.4	22	9.3	15.7	6.4	2.0	42	8.1	13.3	5.2	1.6	29	5.3	8.9	3.6	1.0	93	5.0	1.5
11	3.2	1	4.0	4.0	0.0	0.0	12	5.2	7.0	1.8	0.6	17	6.9	11.0	4.11	1.2	30	3.1	1.0
TOTAL	3.3	29	9.6	15.6	5.9	1.8	66	8.0	12.1	4.2	1.3	56	6.0	9.7	3.8	1.1	151	4.4	1.3

NOTE. Number of objectives for each level: Level I (25), Level II (25), Level III (15).

- In general, program students mastered at least one objective per month of instruction in the fall. The criterion of one objective mastered per month of instruction set as the program objective was met at all levels.
- The results of students at Level III are slightly higher than those found for other bilingual high school programs in New York City. However, it should be noted that the higher gains at this level may be related to the low pre-test scores.

TABLE 15

Performance of Students Tested on the Criterion Referenced English Syntax Test (CREST): Average Number of Objectives Mastered by Grade and Test Level (E.S.L. Title I Spanish-Speaking Students, Spring)

		LEVEL I					LEVEL II					LEVEL III					TOTALS		
			Average Number of Objectives Mastered					Average Number of Objectives Mastered					Average Number of Objectives Mastered					Average Number of Objectives Mastered	
Grade	Average Months of Treatment	N	Pre	Post	Gain	Gain/ Month	N	Pre	Post	Gain	Gain/ Month	N	Pre	Post	Gain	Gain/ Month	N	Gain	Gain/ Month
9	3.1	11	11.4	14.1	2.7	0.9	10	8.9	12.1	3.2	1.5	3	6.3	13.0	6.7	2.2	24	3.4	1.1
10	3.1	8	9.8	13.8	4.0	1.3	31	9.1	13.5	4.4	1.4	24	5.2	8.9	3.7	1.2	63	4.1	1.3
11	3.7	----------					6	5.2	10.2	5.0	1.7	----------					6	5.0	1.7
TOTAL	3.1	19	10.7	14.0	3.3	1.1	47	8.6	12.8	4.2	1.4	27	5.4	9.4	4.0	1.3	93	4.0	1.3

NOTE. Number of objectives for each level: Level I (25), Level II (25), Level III (15).

. In general, program students mastered at least one objective per month of instruction in the spring. The results meet the criterion set as the program objective (one objective per month) at all levels and grades, except grade 9 (Level I).

. The results at Level III appear to be related to the unusually low pre-test scores.

TABLE 16

Spanish Reading Achievement

Significance of Mean Total Raw Score Differences Between Initial and Final Test Scores in Native Language Reading Achievement of Students with Full Instructional Treatment on the Prueba de Lectura Level 3, Forms BS and AS, by Grade

Grade	N	Pre-Test Mean	Pre-Test Standard Deviation	Post-Test Mean	Post-Test Standard Deviation	Mean Difference	Corr. Pre/post	T-test	Level of Significance	Educational Significance
9	17	52.9	13.5	55.7	15.8	2.7	0.61	0.8	NS	.30
10	51	67.0	14.7	67.5	14.4	0.4	0.60	0.26	NS	.05
11	47	63.7	15.3	66.1	13.0	2.4	0.47	1.12	NS	.23
TOTAL	115	63.6	15.4	65.2	14.6	1.6	0.59	1.26	NS	.17

- In general, there were gains on the Interamerican Series, Prueba de Lectura. However, this improvement was neither statistically nor educationally significant.
- The gains for grades 9 and 11 students were not significant statistically, but were minimally significant educationally.
- The results indicate that either the test level may have been inappropriate for the students or that instruction in Spanish was not geared to the reading skills assessed by the test. (See Recommendations.)

TABLE 17

Percentage of Students Passing High School Equivalency Tests (Fall)

	Total (Grade 11)	
Examination	N	% Passing
Reading (Spanish)	25	84.0
Writing (Spanish)	25	96.0
Mathematics (Spanish)	25	80.0

- The highest passing rate was that of students taking the Spanish High School Equivalency Examination in writing (96 percent).

- The lowest passing rate was that of students taking the Spanish High School Equivalency Examination in mathematics (80 percent).

- The criterion of at least a 65 percent passing rate set as the program objective was surpassed on all of the equivalency tests in the fall.

TABLE 18

Percentage of Students Passing High School Equivalency Tests (Spring)

Examination	Total (Grade 11) N	% Passing
Reading (Spanish)	18	94.4
Writing (Spanish)	18	100.0
Mathematics (Spanish)	18	66.7

- The highest passing rate was that of students taking the Spanish High School Equivalency Examination in writing (100 percent).
- The lowest passing rate was recorded for students taking the Spanish High School Equivalency Examination in mathematics (66.7 percent).
- The criterion of at least a 65 percent passing rate set as the program objective was surpassed on all of the equivalency tests in the spring.
- The results on the High School Equivalency Tests in the spring were generally higher than in the fall, except in mathematics. However, the rank order of percent passing from high to low was the same.

TABLE 19

Number of Students Attending and Percent Passing

Teacher-Made Examinations in Content-Area

Courses Taught Bilingually (Spanish/English), by Grade (Fall)

	Grade 9		Grade 10		Grade 11		Total	
Content Area	N	% Passing	N	% Passing	N	% Passing	N	% Passing
Mathematics	37	62.2	103	66.0	20	95.0	160	68.8
Science	4	25.0	69	87.0	17	88.2	90	84.4
Social Studies	27	37.0	57	64.9	8	62.5	92	56.5

- Sixty-nine percent of the program students passed teacher-made mathematics examinations in the fall. The proportion of students passing increases with grade ranging from a low of 62.2 percent in grade 9 to a high of 95 percent in grade 11.

- Eighty-four percent of the program students passed teacher-made science examinations in the fall. The proportion of students passing increases with grade, ranging from a low of 25 percent in grade 9 to a high of 88.2 percent in grade 11.

- Fifty-seven percent of the program students passed teacher-made social studies examinations in the fall. The proportion of students passing ranges from a low of 37 percent in grade 9 to a high of 65 percent in grade 10.

- The highest overall passing rate was reported in science (84.4 percent), followed by mathematics (68.8 percent).

TABLE 20

Number of Students Attending and Percent Passing

Teacher-Made Examinations in Content-Area

Courses Taught Bilingually (Spanish/English), by Grade (Spring)

	Grade 9		Grade 10		Grade 11		Total	
Content Area	N	% Passing	N	% Passing	N	% Passing	N	% Passing
Mathematics	29	55.2	87	60.9	16	87.5	132	62.9
Science	1	100.0	61	85.2	15	100.0	77	88.3
Social Studies	26	46.2	78	69.2	18	88.9	122	67.2

- Sixty-three percent of the program students passed teacher-made mathematics examinations in the spring. The proportion of students passing increases with grade, ranging from a low of 55.2 percent in grade 9 to a high of 87.5 percent in grade 11.

- Eighty-eight percent of the students passed science examinations in the spring. The proportion passing ranges from a low of 85.2 percent in grade 10 to a high of 100 percent in grades 9 and 11.

- Sixty-seven percent of the program students passed social studies examinations in the spring. The proportion of students passing increases with grade ranging from a low of 46.2 percent in grade 9 to a high of 88.9 percent in grade 11.

- The highest overall passing rate was recorded in science (88.3 percent), followed by social studies (67.2 percent), and mathematics (62.9 percent).

TABLE 21

Number and Percent of Students Passing Teacher-Made Examinations in Content-Area Courses Taught in English (Spring)

Content Area	SPRING 1982 N	Number Passing	Percent Passing
Mathematics	8	7	86
Science	1	1	100
Social Studies	16	16	100
TOTAL	25	24	96

- Ninety-six percent of the students passed teacher-made examinations in content-area courses taught in English in the spring.
- The percent passing ranges from a low of 86 percent in mathematics to a high of 100 percent in science and social studies.

TABLE 22

Significance of the Difference Between Attendance Percentages of Program Students and the Attendance Percentage of the School

Grade	N	Mean Percentage	Standard Deviation
9	33	91.7	9.9
10	101	94.4	5.3
11	43	90.5	10.5
TOTAL	177	92.9	7.9

Average School-Wide Attendance Percentage: 71.12

Percentage Difference = 21.7 $z = 12.76$ $p = .001$

- The average attendance rate for program students is 21.7 percentage points higher than the average school-wide attendance rate.
- The attendance rate for program students ranges from a low of 90.5 percent in grade 11 to a high of 94.4 percent in grade 10.
- The higher attendance rate for program students is statistically significant at the .001 level as measured by a one-tailed z-test.

SUMMARY OF FINDINGS

English

The criterion of one objective mastered per month of instruction set as the program objective was met at all levels of the CREST by the program students in the fall. In the spring, the program objective was met at all grades and at all levels, except for grade 9, Level I.

Spanish

In general, program students did not meet the criterion of a statistically significant improvement on the Interamerican Series, Prueba de Lectura, set as the program objective. However, a slight improvement at grades 9 and 11 was minimally significant educationally, but not statistically significant.

In general, the criterion of a 65 percent passing rate on the High School Equivalency Examination in Spanish reading was surpassed in both the fall (84 percent passing) and the spring (94 percent passing).

The criterion of a 65 percent passing rate in the High School Equivalency Examination in Spanish writing was surpassed in both the fall (96 percent passing) and in the spring (100 percent passing).

Mathematics

Sixty-nine percent of the students taking teacher-made mathematics examinations in the fall passed. The proportion of students passing increased with grade from a low of 62.2 percent in grade 9 to a high of 95 percent in grade 11.

Sixty-three percent of the students taking teacher-made mathematics examinations in the spring passed. The proportion of students passing increased with grade from a low of 55.2 percent in grade 9 to a high of 87.5 percent in grade 11.

The criterion of a 65 percent passing rate for students taking the Spanish High School Equivalency Test in mathematics set as the program objective was surpassed in both the fall (80 percent passing) and the spring (68 percent passing).

Science

Eighty-four percent of the program students passed teacher-made science examinations in the fall. The proportion of students passing increased with grade from a low of 25 percent in grade 9 to a high of 88.2 percent in grade 11.

Eighty-eight percent of the program students passed teacher-made science examinations in the spring. The proportion of students passing ranged from a low of 85.2 percent in grade 10 to a high of 100 percent in grades 9 and 11.

Social Studies

Fifty-six percent of the students passed teacher-made examinations in social studies in the fall. The passing rate ranged from a low of 37 percent in grade 9 to a high of 64.9 percent in grade 10.

Sixty-seven percent of the students passed teacher-made social studies examinations in the spring. The passing rate increased with

grade from a low of 46.2 percent in grade 9 to a high of 88.9 percent in grade 11.

In general, in all of content areas there appears to be a positive relation between grade and student performance: the higher the grade, the higher the percent passing.

Content-Area Subjects Taught in English

Ninety-six percent of the students passed teacher-made examinations in content-area courses taught in English in the spring. Eighty-six percent of the students passed mathematics examinations and 100 percent of the students passed examinations in science and social studies.

Attendance

The average attendance rate of program students surpassed the average school-wide attendance rate by 21.7 percentage points.

VII. CONCLUSIONS AND RECOMMENDATIONS

The comprehensive goals and objectives of project BACOP were formulated to address the numerous problems encountered by young Spanish-speaking immigrants of lower income families. The immediate linguistic, cultural, psychological, and educational problems of these students stem from large-scale social, economic, and political conditions. Their needs are overwhelming in many cases. The program's emphasis on basic-skills development in the native and the second languages has offered students the possibility of completing high school requirements for graduation, or the preparation for a high school equivalency diploma. The beginning of career infusion into courses, with its future potential as an actual course of study in career awareness, offers more possibilities to students interested in areas other than higher education.

The program's history and organization within the school have resulted in fully-developed E.S.L. and bilingual courses of study. Great strides have been made in student placement and programming, curriculum, and materials. The instructional staff (professional and paraprofessional) are competent, committed, and enthusiastic. They express an interest in and have high expectations for the students whom they serve. They participate in in-service, program-sponsored training activities and prepare and adapt materials to meet the diverse linguistic and academic needs of students.

Guidance services provided by one full- and one part-time counselor supported by tax-levy funds concentrated mostly on academic advisement.

Guidance counselors were assigned all bilingual students, including 250 program students served by Title VII and 575 served by tax-levy. The psychological and guidance services needed, according to guidance and program staff, seem to be greater than those the program can provide at present. These needs may be expected to increase along with the enrollment of new arrivals who have little, if any, prior schooling.

The parental involvement component is another strong feature. The program has been more successful than the school as a whole in establishing home-school relations and securing parental participation and support in school affairs. It is continuing efforts in this area. Attention might be focused on the aspect of parent education, which was said to be in need of strengthening.

Indicators such as student enthusiasm, attendance, and participation in curricular and extracurricular activities were also very positive. Project BACOP was found to be in healthy condition. The intent expressed by staff and students to work together to improve the program suggests that the program may not only overcome some existing problems but also generate unanticipated and positive results.

RECOMMENDATIONS

The following suggestions are based on: a program review consisting of four days' site visits in which the evaluator interviewed the school principal, assistant principals, project director, staff, teachers, guidance counselors, parents, and students observations of four classes; and review and analysis of relevant documents, records, and student achievement and attendance data.

1) A collaborative process involving department and program directors, teachers, and technical assistants might be undertaken to review, revise, and plan systematically the following:

--how Spanish and English will be used to teach content while developing both languages. The decision regarding what language to use may be made on the basis of:

time - proportional time allocation made for each language;

space - designated areas, such as labs or learning centers;

subject - cultural relatedness of subject and students' mastery of concepts in the subject area;

topic - degree of students' familiarity with and mastery of concepts related to topic;

function within the lesson - to open, review, direct, present new vocabulary, verify understanding, assign homework, praise/reward, and/or regulate behavior (discipline);

--how E.S.L. may be taught in order to enhance conceptual development and achievement in the content areas. Methodologies for this approach may progress as follows:

from the use of subject-area vocabulary to introduce present-tense forms of verbs;

to simple descriptions and comparisons which may increase in complexity to introduce other tenses, adjectives, and pronouns;

to the teaching of higher order language structures in E.S.L. reading and writing (using mathematics, science, and social studies topics);

--how offerings will be diversified sufficiently in order to meet a linguistically and academically (highly) heterogeneous population. One approach might be to separate classes of the same E.S.L. proficiency level by native language and academic proficiency. If this is not viable due to insufficient numbers of students to form classes, then grouping within the same E.S.L. level class will be necessary.

A plan using such an approach would serve to teach English focused on school (and program) purposes by providing mutually reinforcing instruction in the native and second languages.

2) The process of planning and formulating instructional strategies may be preceded by an assessment of teacher training needs and followed by in-service training workshops and college course attendance related to identified needs. The workshops and courses should encompass the major areas of teachers' professional and practical needs related to bilingualism and culture in education.

3) Planning and implementation of a bilingual instructional and staff development program benefits from a process of teacher observation, need identification, and observer feedback. This process might be conducted by program staff who are responsible for program outcomes. If these staff members may not function in supervisory roles due to their positions in the organizational structure, then alternative arrangements would need to be made.

4) Monitoring teacher performance in order to provide for their professional needs and ultimately improve instruction, may be achieved through the existing or a revised form of the organizational structure for supervision. Under the existing structure, the director, who is not a supervisor of program teachers, may be authorized to observe program teachers accompanied by the respective department chairperson. Another approach might be to revise the structure by creating a department or a mini-school (organizational unit) of bilingual education

directed by an assistant principal authorized to observe bilingual, E.S.L.,and native-language teachers.

5) Given the program's effort toward the development of career infusion in courses through staff training, curriculum in this area is now essential. There is a need to acquire curricula developed by (and for) projects serving special populations or develop them with existing program resources. If they can not be acquired in the students' native language, English-language materials or curricula may be adapted. The outcome, however, should be an integrated career education component implemented as originally conceived.

6) Given the results on the Prueba de Lectura in Spanish reading, the test should be reviewed to determine its appropriateness for students of varying proficiency in Spanish, instruction in this area should be monitored to determine how it relates to the skills measured by the test, and materials used in the Spanish courses should be reviewed to determine how they relate to the test objectives.

VIII. APPENDIX

123a.30 (e) EVALUATION PLAN

1. Appropriateness of Design
2. Design Content:
   a) Assessing attainment of all objectives
   b) Data collection instruments
   c) Data Analysis procedure
   d) Time schedule
   e) Staff responsibilities
3. Comparison Procedure
4. Identification of Non-Participants
5. Sample Procedures
6. Data Collection and Analysis
7. Data Use of Improvement
8. Time line for the Evaluation of the Program
9. Entry Exit Time Line

123a (e) EVALUATION

George Washington High School is under jurisdiction of the New York City Board of Education. Therefore, the evaluation design that follows has been developed in consultation with the Office of Educational Evaluation of such agency. Our program is bound by the rules and regulations governing that agency and the evaluation Design that follows will reflect compliance with the rules and regulations. The final evaluation of the program will be conducted by independent consultant assigned by the office of Educational Evaluation.

The evaluation report of our first year of funding submitted already to OBEMLA is fairly accurate with exception made of very minor points and reflects the general quality of our program. One aspect stressed in the report among others, is the fact that our program, being only in the first year of Title VII funding at the time of submission of this proposal looked more like a program that has been in existence for several years to the eyes of the evaluators.

We have done and continue to do every effort to manage every Title VII dollar carefully and to provide evidence of our program's accountability.

EVALUATION PLAN

The evaluation plan will consider the project's instructional non-instructional and training objectives, outlined below:

I INSTRUCTIONAL OBJECTIVES

OBJECTIVE I

An estimated 65% of all students enrolled in the high school equivalency preparation classes will be able to pass the High School Equivalency Examination in English or Spanish and will receive a G.E.D. diploma

(i) Instrument:

High School Equivalency Examination in English or Spanish.

(ii) Data Analysis Procedure:

Tabulation of results; calculation of percentage of results passing, and comparison with the criterion level.

(iii) Time Schedule

a) Dates of testing - ongoing

b) Data collection date: June 1982

(iv) Number of students tested:

a) Treatment: All students in high school equivalency preparation classes who are prepared to take the test.

b) Control: not applicable

OBJECTIVE 2

An estimated 50% of the students participating in the dropout program will become mainstreamable into either the bilingual program or the regular program at George Washington High School.

(i) Instrument:
School Records

(ii) Data Analysis Procedure:

Calculation of the number of students mainstreamed as a percentage of the total number enrolled in the dropout prevention program, and comparison with the criterion level.

(iii) Time Schedule:

a) Data of mainstreaming:
January 1982, June 1982 into the bilingual or regular academic program.

b) Data collection date: June 1982

(iv) Number of students tested:

1. Treatment: All students in the dropout prevention program

(V) Control: Not applicable

OBJECTIVE 3

Students participating in the high school equivalency preparation classes for one full year will increase their level of reading ability by an increment of .05 level of statistical significance as measured by the New York City Reading Test (P.S.E.N.).

(i) Instrument:

New York City Reading Test (P.S.E.N.)

(ii) Data Analysis Procedure:

Correlated t - test will be performed for each grade/test level.

(iii) Time Schedule

a) Dates of Testing:

Pre-test	October	1981
Post-test	April	1982

b) Data Collection Date:

June 1982

c) Number of students tested

1) Treatment: Students enrolled for the entire year.

2) Control: Not applicable

OBJECTIVE 4

An estimated 65% of students enrolled in individualized mathematics will be able to pass criterion-referenced tests based on skills tested on the G.E.D. examination. It is projected that students will be tested at least once a month.

(i) Instrument:

Teacher prepared criterion referenced tests.

(ii) Data Analysis Procedure:

Tabulation of the number of objectives mastered for each student; comparison of individual achievement with the criterion level per student. Calculate the total number of students meeting the objectives as a percentage of the total number enrolled.

(iii) Time Schedule:

a) Dates of testing - ongoing

b) Data collection date - June 1982

(iv) Number of students tested:

1) Treatment: All students in component I and II.

2) Control: Not applicable.

OBJECTIVE 5

An estimated 65% of the students enrolled in English as a Second Language will be able to master 10 or more objectives on a post test situation on the same level of the Criterion referenced English Syntex Test (CREST).

I Dropout Prevention Program

II High School Equivalency Program

III College/Career Orientation Program

(i) Instrument:

Criterion Referenced English Syntex Test (CREST).
Level I, II, III

(ii) Data Analysis Procedure:

Tabulation of the number of Objectives mastered for each student; somparison of individual achievement with the criterion level of 10 objectives per student. Calculate the total number of students meeting the objectives as a percentage of the total number enrolled.

(iii) Time Schedule:

a) Dates of Testing:

Pre-test: September 1981

Post-test May 1982

b) Data collection date: June 1981

(iv) Number of Students tested

1) Treatment: Students enrolled in components I and II.

2) Control - Not applicable

OBJECTIVE 6

Students receiving a full year of instruction will increase their performance on the appropriate level of the Prueba de Lectura at the .05 level of Statistical Significance.

(i) Instrument:

Prueda de Lectura, level III

(ii) Data Analysis Procedure:

A correlated t-test will be performed for each grade/test June 1982.

(iii) Time Schedule:

a) Dates of testing: Pre-test:September 1981
Post-test: May 1982

b) Data collection date: June 1982

(iv) Number of Students tested:

1) Treatment: Students enrolled in Spanish reading classes (Components I and II).

OBJECTIVE 7

An estimated 65% of the students enrolled in the college/career orientation program (10th, 11th and12th grade bilingual students) will be able to pass the New York State Regents Competency Test in English (Reading and Writing) and mathematics and receive a regular high school diploma as a result of Specialized instruction received.

(i) Instrument:

1) New York State Regents Competency Test in English and mathematics

2) School Records

(ii) Data Analysis Procedure:

Review test outcomes and student records; calculate the percentage of students passing.

(iii) Time Schedule:

1) Dates of testing: January 1982
June 1982

2) Data collection date: June 1982

(iv) Number of Students Tested

1) Treatment: Students enrolled in the College/Career orientation program (Component III).

2) Control: Not applicable.

NON-INSTRUCTIONAL OBJECTIVES

OBJECTIVE I

Attendance of each student in the high school equivalency component will improve by an estimated 25% minimum.

(i) Instrument:

Attendance records

(ii) Data Analysis procedure:

Review attendance records upon entry into the program and at the end of the school year; calculate semester and annual days in 1980-81 school year and compare them with actual student attendance.

(iii) Time Schedule:

1) Dates - ongoing

2) Data collection date: June 1982

(iv) Number of Students

1) Treatment: Students in components I and II

2) Control - Not applicable

OBJECTIVE 2

An estimated 80% of the participants in the high school equivalency and college/career orientation components will apply for post graduate study either at college or vocational school, or will apply for jobs.

An estimated 65% of applying students will be accepted and placed.

(i) Instrument:

School records, interviews and applications

(ii) Data Analysis Procedure:

Tabulation of results,calculation of percentage of students applying and accepted, and comparison with the criterion level.

(iii) Time Schedule:

1) Dates - ongoing

2) Data collection date: June 1982

(iv) Number of Students

1) Treatment: Students inComponents I and II

2) Control: See comparison page 94.

TRAINING OBJECTIVES

Staff Development

OBJECTIVE I

An estimated 40% of the staff will be involved in other than in-service training including college and university, courses, professional workshops and/ or conferences.

(i) Instrument:

Staff development records.

(ii) Data Analysis Procedure:

Review staff development records (college/university courses); calculate the percentage of staff members who are participating.

(iii) Time Schedule:

1) Dates - ongoing

2) Data Collection date: June 1982

(iv) Number of Participants

1) Treatment: All staff members participating in the program.

2) Control: Not applicable

OBJECTIVE 2

100% will be involved in in-service training such as adaptation and development of curriculum suitable for special bilingual classes, linguistic and cultural sensitivity and the attainment of expertise in the area of individualized instruction.

(i) Instrument:

Program records, curriculum developed

(ii) Data Analysis Procedure calculate the percentage of staff members involved in in-service training.

(iii) Time Schedule:

1) Dates: ongoing

2) Data Collection dates: June 1982

(iv) Number of Participants:

1) Treatment: All staff members participating in the program.

2) Control: Not applicable

Comparison to similar non-program students in a traditionally-structured academic bilingual program.

Since bilingual instruction for all students of limited English proficiency (as measured by the Language Assessment Battery) is mandated in New York City, no appropriate comparison groups can be found in the instructional areas. However, the performance of students in each component of our program will be compared with non-program students who meet the selection criteria defined in section 123a. (b) (pp.) in the following manner:

Retention and Attendance

As a result of participation in the dropout prevention program and the high school equivalency program students will have a significantly lower dropout rate and a higher rate of attendance than similar non-program students at the .05 level of significance.

a) Instrument: School records (permanent records, attendance card, profile)

b) Data analysis procedure: Test for the difference between two independent proportions

c) Time schedule:

1. Dates - September 1981, January 1982, May 1982
2. Data collection - June 1982

d) Number of pupils tested:

1. Treatment - A sample of 25 students from each components I and II
2. Control - Two sample groups (25 in each) of similar non program students

Comparison to non-bilingual mainstreamed students

The performance of program students will be compared to the general school population potential graduates in the area of college/vocational placement. Such a comparison is appropriate since the provision of the bilingual program is intended to result in equal educational opportunity for LEP children and therefore should result in the elimination of differences in performance between LEP and non-LEP children.

College/Vocational Placement

As a result of participation in the program, the percentage of students placed in college or vocational centers will be equal to or greater than mainstreamed potential graduates.

a) Instrument: School records, interviews, applications

b) Data analysis procedures: Calculation of percentage of students placed in colleges or vocational centers by the bilingual program and by the mainstream program.

c) Time schedule:

   1. Dates - ongoing

   2. Data collection date - June 1982

d) Number of pupils

   1. Treatment - Students in Components II and III

   2. Control - All potential graduates 1981-1982

Data Use for Improvement

Evaluation Plan

The date obtained through the evaluation will contribute to improvements in the operation of the project by providing information which may be useful in the following ways:

a) To more clearly define the characteristics of the population being served, thereby making judgements about the adequacy of the program for the entire range of students possible.

b) To provide information on the adequacy of the objectives, thereby meeting modification of the objectives possible to reflect more realistic expectations.

c) To identify problems encountered in the implementation of the program, thereby identifying situations which need to be attended to and which may help explain project outcomes.

d) To identify areas of strength and weakness in student performances thereby identifying areas which need review and/or modification, or further support.

e) To generate recommendations which may be useful in making changes in the program, thereby resulting in program improvement.

f) To provide information which will be useful in informing appropriate audiences, thereby improving attitude toward the program.